

REMARKS

The Examiner is thanked for the careful examination of the application. However, in view of the remarks that follow, the Examiner is respectfully urged to reconsider and withdraw the outstanding rejections.

Claim Amendments

Claim 22 has been amended by the present amendment to place it in independent form. As such, applicants respectfully request that the Examiner withdraw the objection of claim 22 under 37 CFR 1.75(c) as being of improper dependent form.

Art Rejections

Claims 1 and 22 were rejected under 35 U.S.C. § 102(e) as being anticipated by Park et al. (US Patent App. Pub. No. 2004/0241590). Applicants respectfully traverse this rejection.

Claims 1 and 22 recite a photosensitive metal nanoparticle prepared by (i) forming a self-assembled monolayer of a thiol or isocyanide compound with a terminal reactive group, represented by Formula 1, on the surface of the metal nanoparticle, and then (ii) introducing a photosensitive group through the reaction with the terminal reactive group to the monolayer.

Park et al. does not teach or suggest every element of the present claims. Specifically, Park et al. does not teach or suggest a metal nanoparticle.

The Examiner has asserted that Park et al. teaches a method for forming on a gold *substrate* an aromatic imine monolayer that is likely to occur selective chemical transformation by soft X-ray irradiation. However, in Park et al., the substrate is not taught or suggested to be a nanoparticle. Instead, Park et al. simply discloses that a nano-scale pattern (such as from the X-ray irradiation) may be formed on a bulk-sized substrate. Claims 1 and 22 specifically recite a metal nanoparticle. Thus, Park et al. does not disclose the presently claimed invention, as defined in claims 1 or 22, and accordingly these claims are not anticipated.

A metal nanoparticle is significantly different from a bulk-sized metal substrate. That is, when metal is reduced to a nano-size from its bulk state, a metal nanoparticle has extremely large surface while there are very few metal atoms in the particle, and for this reason, metal nano-particle exhibits unique catalytic, electrical, photoelectric and magnetic properties.

Moreover, a metal nanoparticle according to embodiments of the present invention may be blended with a conductive polymer and/or non-conductive polymer to form a film, and may be used for example in fields of antistatic washable sticky mats, antistatic shoes,

conductive polyurethane printer rollers, conductive wheels and industrial rollers, antistatic pressure sensitive adhesive films, EMI (ElectroMagnetic Interference shielding), etc. with success.

The disclosure in Park et al. of a bulk metal substrate also does not teach or suggest the presently claimed metal nanoparticles.

Therefore, applicants respectfully request that the rejection of claims 1 and 22 under 35 U.S.C. § 102(e) as being anticipated by Park et al., be withdrawn.

Allowable Subject Matter

Applicants thank the examiner for indicating that claims 2-10 and 12-15 would be allowable if rewritten in independent form.

Conclusion

The patent application is believed to be in condition for allowance. Accordingly, favorable reexamination and reconsideration of this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues, the Examiner is invited to call the undersigned at the number below.

Respectfully submitted,

BUCHANAN INGERSOLL PC

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